

POST GRADUATE EXAMINATION, MAY - 2018

MD MICROBIOLOGY

(PAPER ONE)

GENERAL BACTERIOLOGY & IMMUNOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** State the risk of improper disposal of biomedical waste. How would you set up waste disposal programme in your hospital? (20)
- Q. 2.** Classify T cells. Write in details, the development, activation, selection, biological functions and various assay methods of T cells. (20)
- Q. 3. Write briefly:** (3 x 10 = 30)
- a. Flow cytometry
 - b. Plasma sterilization
 - c. RAST
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Stoke's method of AST
 - b. DNA vaccines
 - c. Dark ground microscopy
 - d. Bioterrorism
 - e. Runting syndrome

X

POST GRADUATE EXAMINATION, MAY - 2018

MD MICROBIOLOGY
(PAPER TWO)

SYSTEMIC BACTERIOLOGY & MYCOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1. Enumerate the opportunistic fungal infections in man. Discuss virulence factors and laboratory diagnosis of any one of them. (20)
- Q. 2. Enumerate diarrheagenic *Escherichia coli*. Briefly describe the virulence factors and detection of each type. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- Mycetoma
 - Laboratory diagnosis of rickettsial infections in man
 - Antimicrobial drug resistance in *Mycobacterium tuberculosis*
- Q. 4. Write short notes on: (5 x 6 = 30)
- Phaeohyphomycosis
 - Candida auris*
 - Mycotoxigenesis
 - TRIC agents
 - Carbapenem resistant *enterobacteriaceae*

X

POST GRADUATE EXAMINATION, MAY - 2018
MD MICROBIOLOGY
(PAPER THREE)
VIROLOGY AND PARASITOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Discuss the immunology, pathogenesis and laboratory diagnosis of falciparum malaria. Add a note on malarial vaccines. (20)

Q. 2. Enumerate the zoonotic viral infections. Discuss in detail the morphology, pathogenesis, laboratory diagnosis and prophylaxis of rabies. (20)

Q. 3. Describe briefly:

(3 x 10 = 30)

- a. Lab diagnosis of HIV infection in newborn
- b. Coccidian parasites causing diarrhoea
- c. Clinical classification and lab diagnosis of dengue

Q. 4. Write short notes on:

(5 x 6 = 30)

- a. Newer approaches for identifying influenza virus
- b. Human herpes viruses 6, 7, 8
- c. Subcutaneous filariasis
- d. Congenital toxoplasmosis
- e. Pathogenesis of neurocysticercosis

X

POST GRADUATE EXAMINATION, MAY - 2018

**MD MICROBIOLOGY
(PAPER FOUR)**

RECENT ADVANCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Role of syndrome-specific multiplex PCR panels in diagnostic microbiology. (20)
- Q. 2.** Discuss quality assurance in the diagnostic microbiology laboratory. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. Laboratory diagnosis of Zika virus infection
 - b. Treatment options for XDR and PDR Gram-negative bacilli
 - c. Class II biological safety cabinets
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Difference between humanized and fully human monoclonal antibodies
 - b. Pre-exposure prophylaxis against HIV infection
 - c. HPV vaccines
 - d. Faecal transplantation
 - e. Cephalosporins active against MRSA

X